Nurse Rostering

Instructions

- You may complete the exercise in whatever programming language best suits your skills, and the problem. However, be aware that your reviewer will be most familiar with Ruby, Javascript and Java (in roughly that order).
- The solution must contain at least one test case that demonstrates a complete solution.
- Once you're finished, package up everything including the source control history, in a zip or tarball, and submit it at the link below.
- There's no set time limit but as a guide, most people will get back to us within a few days.

Tips

- We're looking for a clear and readable solution.
- The quality of your solution should be at a level you would be happy to produce in your everyday life as a software developer.
- How you solve the problem is just as important as getting a complete solution.
- We're not looking for you to handle every possible edge case.
- We expect the code for building rosters to be your own.
- Enjoy!

Challenge

In a hospital environment, nurses work a rotating shift system. There are three work shifts per day; a morning shift, an evening shift and a night shift. Each day, all three shift needs to be filled.a

You have been tasked with developing a rostering system which can calculate and output the nursing roster for any specified month.

Considerations

- 5 nurses need to be on staff for each shift.

- Nurses must not be expected to work more than one shift per day.

- To maintain a healthy work/life balance, no nurse can be asked to work for more than 5 days in a row.

- Similarly, no nurse can be expected to work more than five night shifts per month.

- Days off must occur in groups of two or more.

Materials

A list of rosterable nurses has been provided in the file nurses.txt.

The code you produce should be PRODUCTION quality, of the kind you would produce commercially.

Use source control to illustrate your workflow, but do not create any publicly accessible repository for this. Instead, share a copy of the repo in a zip or tarball.